

## CLAIMS

1. (Currently Amended) A stream computer, said stream computer comprising:  
a plurality of interconnected functional units, each of said functional units  
responsive to a data stream containing data to be operated on by one or more of said  
functional units;

digital logic cooperatively associated with one of said functional units for adding  
one or more tokens to said data stream presented to said one of said functional units said  
one or more tokens used to describe a type of data being generated by said one or more  
functional units,

said digital logic reporting said one or more tokens at one of said functional units  
to a graphical programming environment to generate an error message,

said graphical programming environment compatible with human perception,  
wherein said data and one or more tokens form said data stream, said digital logic  
reporting the occurrence of said one or more tokens within said data stream to said  
graphical programming environment,

wherein said digital logic reports one or more tokens arriving at one of said  
functional units, said one or more tokens within said data stream, said digital logic  
reporting to said graphical programming environment, said one or more tokens present  
within said data stream, said graphical programming environment compatible with  
human perception,

wherein said programming environment compares said one or more tokens  
arriving from said digital logic with stored values for said one or more tokens to generate  
said error message,

wherein an error message is generated by said graphical programming  
environment whenever said comparison between said one or more tokens and said stored  
values indicates said one or more tokens and said stored values do not match.

2. (Canceled)

3. (Currently Amended) A stream computer as described in claim [[2]] 1 wherein said digital logic reports said occurrence of tokens to said graphical programming environment without interrupting said data stream.

4. (Canceled)

5. (Canceled)

6. (Canceled)

7. (Currently Amended) A stream computer as described in claim [[2]] 1 wherein said digital logic reports one or more tokens generated by one of said functional units, said one or more tokens incorporated within said data stream, said digital logic reporting to a graphical programming environment, said one or more tokens present within said data stream, said graphical programming environment compatible with human perception.

8. (Previously Presented) A stream computer as described in claim 7 wherein said programming environment compares said tokens arriving from said digital logic with stored values for said tokens.

9. (Canceled)

10. (Currently Amended) A stream computer as described in claim [[2]] 1 wherein said at least one of said plurality of interconnected functional units, and said digital logic, are integrated on a single substrate.

11. (Currently Amended) A method for operating a stream computer, said method comprising the steps of:  
programming one or more interconnected functional units forming said stream

computer to respond to data and one or more tokens, said data and said one or more tokens contained in a data stream;

programming digital logic cooperatively associated with said one or more functional units for adding a token to said data stream presented to said one of said functional units, said token used to described a type of data being generated by said one or more functional units,

said digital logic reporting said one or more tokens at one of said functional units to a graphical programming environment,

said graphic programming environment compatible with human perception, wherein said digital logic reports the occurrence of tokens with said data stream to said graphical programming environment to generate an error message,

wherein said digital logic reports one or more tokens arriving at one of said functional units, said one or more tokens within said data stream, said digital logic reporting to said graphical programming environment, said graphical programming environment compatible with human perception of said one or more tokens present within said data stream,

wherein said programming environment compares said tokens arriving from said digital logic with stored values for said one or more tokens to generate said error message,

wherein an error message is generated whenever said comparison between said tokens and said stored values indicates said tokens and said stored values do not match.

12. (Canceled)

13. (Currently Amended) A method for operating a stream computer as described in claim [[12]] 11 wherein said digital logic reports said occurrence of tokens without interrupting said data stream to said graphical programming environment.

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Currently Amended) A method for operating a steam computer as described

in claim [[12]] 11 wherein said digital logic reports one or more tokens generated by one of said functional units, said one or more tokens generated by one 9of said functional units, said one or more tokens incorporated within said data steam, said digital logic reporting to a graphical programming environment, said graphical programming environment compatible with human perception of said one or more tokens present within said data stream.

18. (Previously Presented) A method for operating a stream computer as described in claim 17 wherein said programming environment compares said tokens arriving from said digital logic with stored values for said tokens.

19. (Canceled)